

REMARKS

Claims 1-60 are currently pending in this Application. The Office Action dated December 16, 2003, rejected Claims 1-60. In response, Applicants have amended claims 1, 4, 7-12, 14-16, 18-19, 21, 37, 40, 48-50, 55 and 59, and cancelled Claims 33 and 38 to further clarify the patentable subject matter of the claimed invention. No new matter has been added by any of these amendments. For the reasons discussed in detail below, Applicants submit that the pending claims are patentable over the art of record.

Rejection under 35 U.S.C. 103(a):

The instant Office Action rejected Claims 1-7, 16-22, 30-33, 37-39, 50-51, 54-55, and 59-60 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,774,660, Brendel, et al. ("Brendel") in view of U.S. Patent No. 6,173,322B1, Hu ("Hu").

In regard to amended Claim 1, the claimed invention teaches selecting one Internet Protocol (ip) address associated with a plurality of virtual servers. As defined in the specification, a virtual server is not the actual content server where a resource is accessed. Instead, a virtual server is a specific combination of a virtual IP address and a virtual port that can be managed by either a server array controller or a host machine. Access to an actual resource is provided at a node server that operates on a separate intranet that is managed by a server array controller. (Page 6, lines 20-21). Thus, the claimed invention provides an IP address for an endpoint (virtual server) that is not the physical IP address where access to a resource is ultimately provided. (Page 4, lines 19-24).

In contrast, Hu discloses providing a direct connection (or information for making a direct connection) between a client and a load balanced content server that provides access to a requested resource. (See Abstract). Similarly, nowhere in Brendel is there a teaching or suggestion for providing an IP address for a virtual server in a reply to a DNS. Instead, Brendel teaches a load balancer that first receives all requests and which determines the physical IP address for another node that can provide access to a requested resource. (See Abstract)

Additionally, the claimed invention provides for receiving a request from a domain name service (DNS) and providing a selected IP address in a response to the DNS. As made clear in the specification, the claimed invention does not directly communicate with the client. Instead, the claimed invention operates as an extension (EDNS) to a DNS which handles the actual communication with a client. (Page 4, line 30 through Page 5, line 17).

In contrast, both Hu and Brendel teach communicating with a client for enabling a connection to a requested resource. Nowhere in the teachings of the cited prior art references do they disclose operating as an extension to a DNS where communications with a client are a separate process that is handled by the DNS. It is important to understand that the claimed invention teaches responding to a DNS request (not the actual client's request) by providing an IP address for a domain name that is associated with a resource and a plurality of virtual servers to the DNS. In contrast, both Hu and Brendel teach communicating with a client and enabling the establishment of a direct connection between the client and a content server that provides the actual access to the resource.

Furthermore, Hu discloses a restriction that "each content server within a group be capable of servicing all client requests sent to that group." See Hu, Col 2, lines 40-43, Col 7, lines 15-19. However, in the claimed invention, load balancing determinations are based on performance parameters. Therefore, no such restriction exists in the claimed invention. Interpreting any of the cited references as disclosing a determination of the load by an out-of-band process and resolving the IP address based on the optimal load balance determination, would be changing the principle of operation of each of the references, or combination thereof.

For at least the reasons stated above, the suggested combination of Hu and Brendel does not make obvious the invention as claimed in amended Claim 1. Additionally, amended independent claims 37, 40, 50, 55, 59, 60, and new claim 61, are non-obvious in view of the cited references.

Regarding claims 4-6, Brendel does not disclose or suggest when the primary DNS determines the domain name is delegated to an EDNS, enabling the primary DNS to refer the local

CONCLUSION

By the foregoing explanations, Applicants believe that this response has addressed fully all of the concerns expressed in the Office Action dated December 16, 2003, and believe that it has placed each of the pending claims in condition for immediate allowance. Entry of the amendments and early favorable action in the form of a Notice of Allowance is urged. Should any further aspects of the application remain unresolved, the Examiner is invited to telephone Applicants' attorney at the number listed below.

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Respectfully submitted,

By 

John W. Branch

Registration No. 41,633

DARBY & DARBY P.C.

P.O. Box 5257

New York, New York 10150-5257

(206) 262-8900

(212) 753-6237 (Fax)

Attorneys/Agents For Applicant